



Microsoft Surface Pro 4 Heat Sink Replacement

Learn how to remove the Surface Pro's heat sink.

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INTRODUCTION

The Surface Pro 4's heat sink cooling system consists of copper tubing and a connected copper plate. Here is how to remove it for replacement or to access the components below.



TOOLS:

- [iFixit Opening Picks set of 6](#) (1)
 - [iOpener](#) (1)
 - [Small Plastic Spudger](#) (1)
 - [T3 Torx Screwdriver](#) (1)
 - [T4 Torx Screwdriver](#) (1)
 - [T5 Torx Screwdriver](#) (1)
 - [iFixit Opening Tools](#) (1)
 - [Suction Handle](#) (1)
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Step 1 — Display



- Turn the Surface Pro so that the screen is facing you as if you were using it normally.

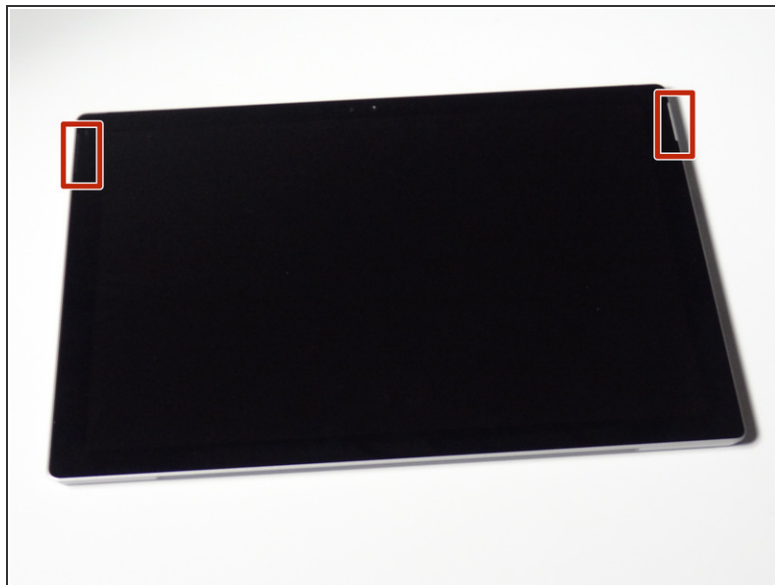
⚠ Make sure the device is turned off before you start working on it.

Step 2



- The display is glued to the frame of the device . You can weaken the adhesive with a heating pad such as the iOpener.

Step 3



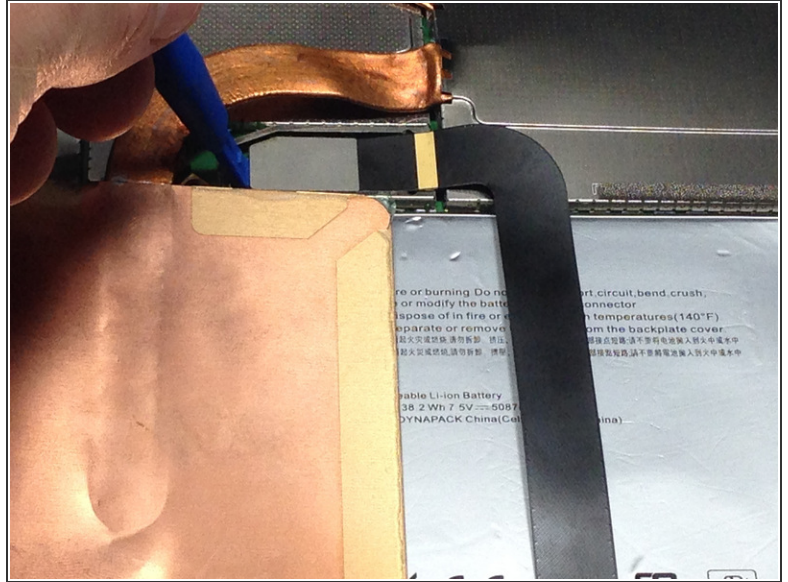
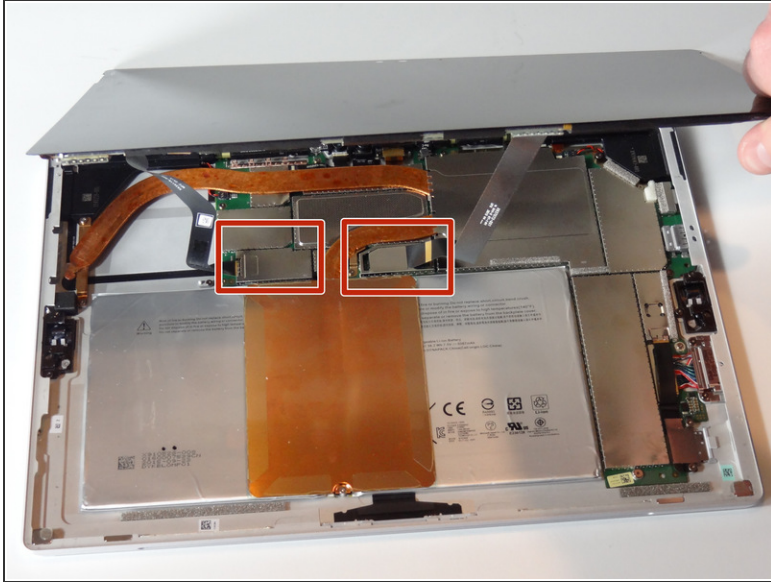
- Slide an opening pick around the entire display, cutting the heated adhesive attaching the screen to the base. Apply more heat as needed.
 - There are tabs on the upper right side and upper left side where it is easier to get a tool under the display.
- ⓘ If you are having trouble, see Step 4 of the [iFixit teardown](#).

Step 4



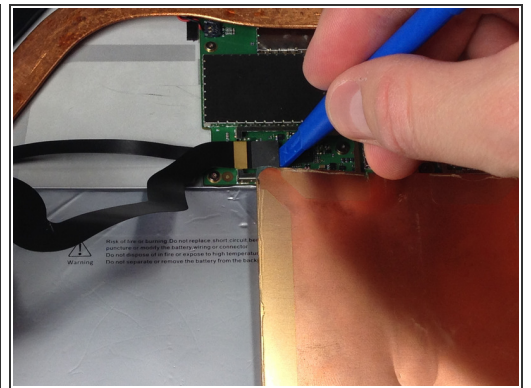
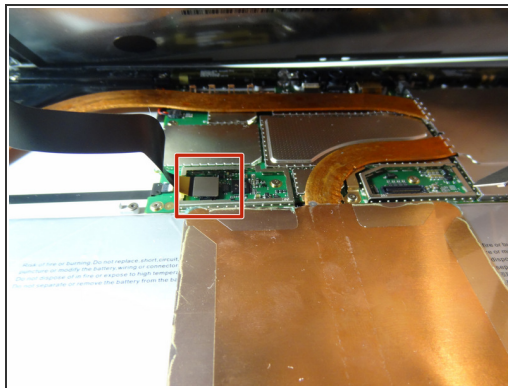
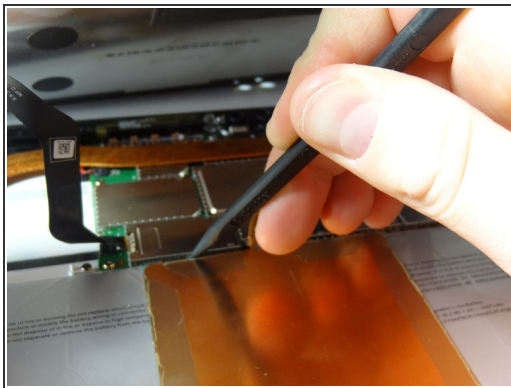
- Attach a suction cup to the front of the display.
 - Using the suction cup, pull the display and base apart. You may need to hold the base in position with your hands.
- i** It is usually better to place the suction cup on the left or right side of the screen, rather than in the center. This provides more leverage when removing the screen.

Step 5



- There are two display cables connecting the body to the display.
- Disconnect the cable on the right by putting a plastic opening tool under the edge of the connector and prying it up.

Step 6



- The connection for the strip on the left is covered by a lightweight metal casing. Pry around the edges of this case with a plastic spudger. Once it is loose, pull it off.
- Unplug the connection with a plastic opening tool.

Step 7



- The display should now be free of the body of the Surface Pro. Lift it up and away from the rest of the device.
- ☑ Before installing a new display, check it carefully to see if any parts need to be transferred over from the back of the old display to the new display. In particular, you may need to transfer over the [NTrig board in the corner](#) by disconnecting the two attached ribbon cables and using heat and gentle prying to carefully separate the glue securing the board.

Step 8 — Heat Sink



- Both sections of the heat sink are connected to the motherboard via a panel which is covered by a metal casing.
- Remove the casing by prying around the edges and then lifting the entire piece once it is loose.

Step 9



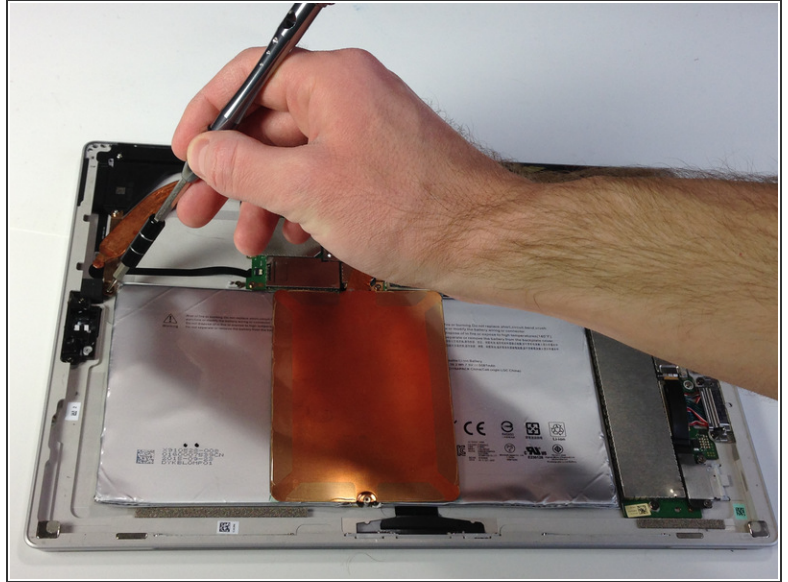
- Remove the four 1.5mm Torx T4 screws holding the main body of the heat sink to the motherboard

Step 10



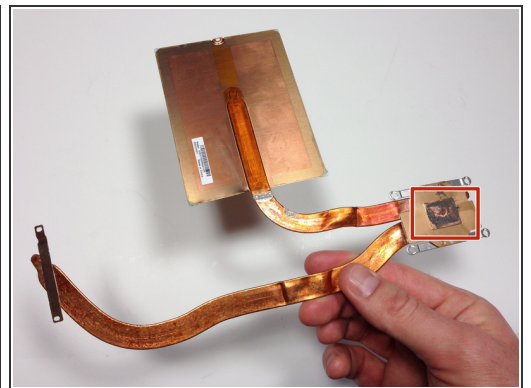
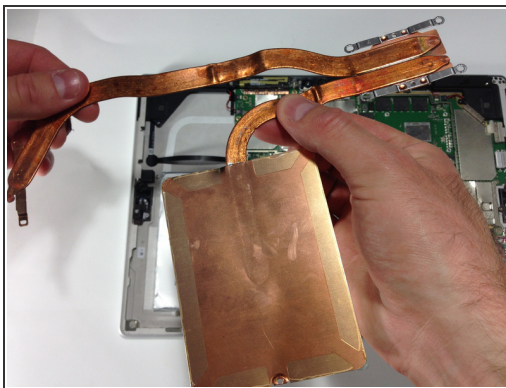
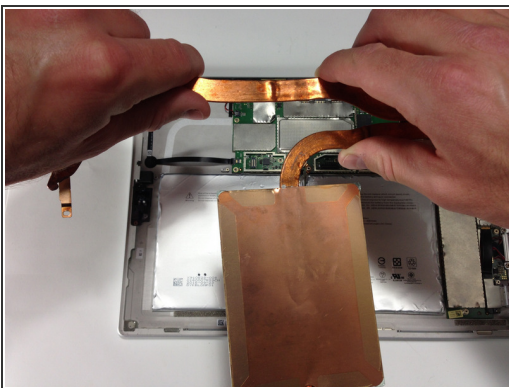
- Remove the 1.5mm Torx T3 screw holding the copper plate near the bottom of the device.

Step 11



- Remove the 1.5mm Torx T4 screw holding the heat sink tubing to the frame of the device.
- Remove the 3.0mm Torx T4 screw.

Step 12



- You can now remove entire heat sink by lifting it out with your hands.

⚠ Be sure to [replace the thermal paste](#) when installing the heat sink.

To reassemble your device, follow these instructions in reverse order.

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